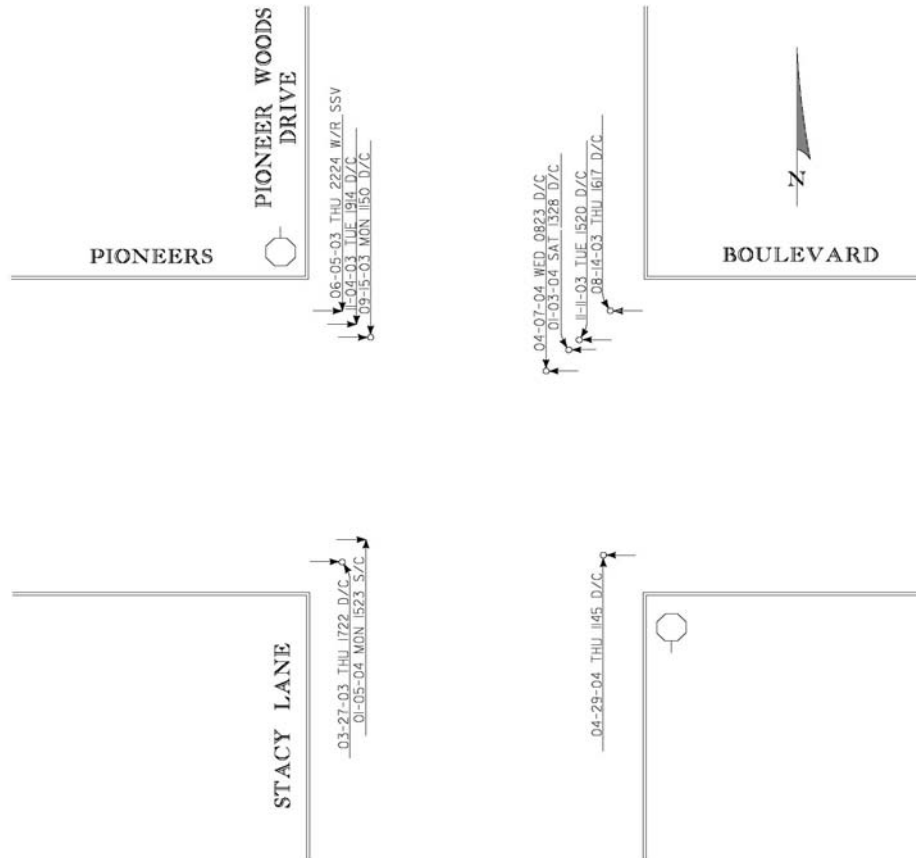


## 5.16 Pioneers Boulevard and Stacy Lane

**BEFORE**

**ADT:** 5,500 veh/day  
**Traffic Control:** NB/SB Stop Sign

**Time Period:** 1/1/03-6/1/04  
**Crash Pattern:** NB & SB Right Angles



Total Crashes in Before Period: 10

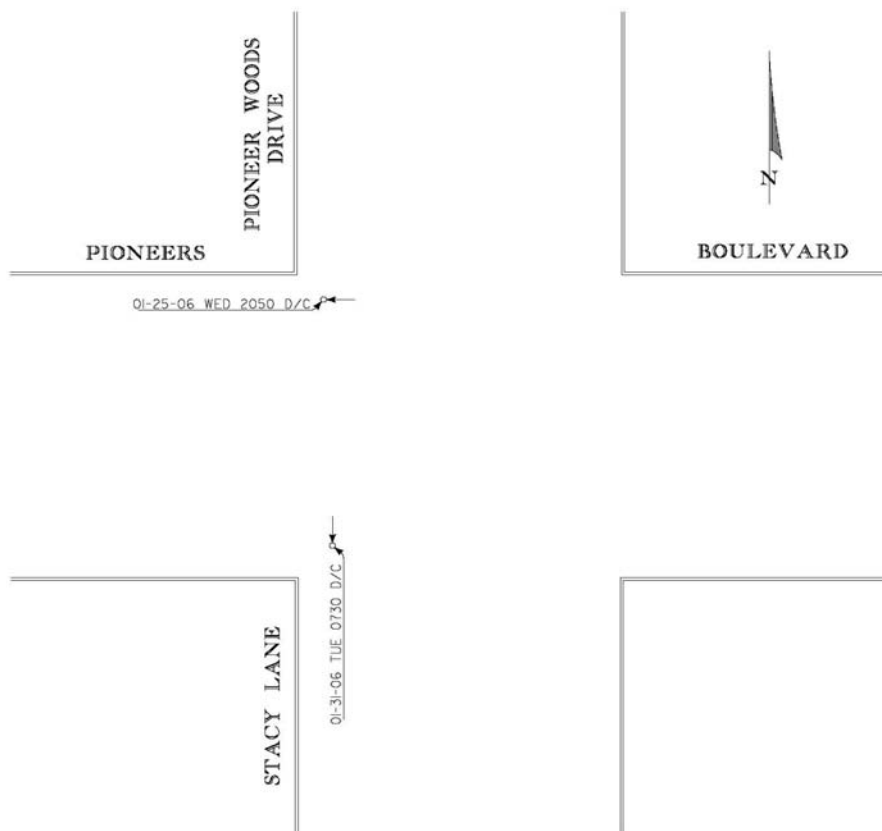
**N/A**

### 5.16 Pioneers Boulevard and Stacy Lane

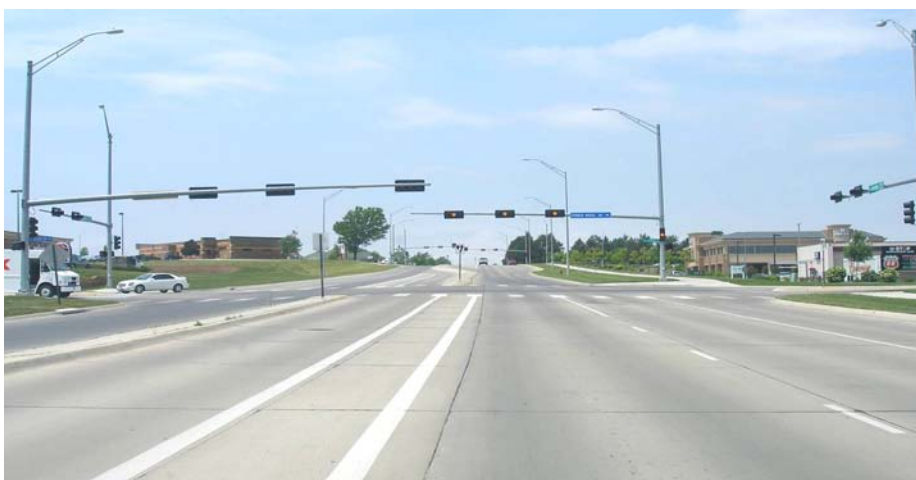
### AFTER

**Countermeasures:** Installed Traffic Signal  
**Improvement Completion Date:** July 13, 2004

**Time Period:** 1/1/05-6/1/06  
**Speed Limits:** NS Local- 25 mph  
EW Arterial- 45 mph



Total Crashes in After Period: 2



Pioneers Boulevard and Stacy Lane - Westbound Approach (After)

## 5.16 Pioneers Boulevard and Stacy Lane

## COMPARISON

Countermeasures: Installed Traffic Signal  
Improvement Completion Date: July 13, 2004

|   | Before        | After         | Change      |
|---|---------------|---------------|-------------|
| <b>Analysis Period</b>                      | 1/1/03-6/1/04 | 1/1/05-6/1/06 | -           |
| <b>Primary Crash Benefit</b>                |               |               |             |
| Total Number of Correctable Crashes         | 10            | 0             | -100%       |
| All Other Intersection Crashes              | 0             | 2             | 0%          |
| <b>Intersection Crash Experience</b>        |               |               |             |
| Injury + Fatal Crashes                      | 7             | 2             | -71%        |
| Property Damage-Only Crashes                | 3             | 0             | -100%       |
| Non-Reportable Crashes                      | 0             | 0             | 0%          |
| <i>Total Number of Intersection Crashes</i> | <i>10</i>     | <i>2</i>      | <i>-80%</i> |
| <b>Total Intersection Benefit</b>           |               |               |             |
| Crash Rate                                  | 3.52          |               | -100%       |
| EPDO Rate                                   | 25.34         |               | -100%       |
| EPDO Number*                                | 71.92         |               | -71.92      |

Cost of Property Damage Crash: \$ 8,200  
Total Benefit (12 months): \$ 589,744  
Equivalent Uniform Annual Benefit (EUAB): \$ 428,500

**Total Cost of Improvements:**

Equivalent Uniform Annual Cost (EUAC): \$ 8,235  
Initial Cost: \$ 80,000

**Benefit-Cost Ratio:**  $\frac{\$ 428,500}{\$ 8,235} = 52.0$

**Net Benefit (Present Worth):** \$ 428,500 - \$8,235 = \$420,265

*\*Change NOT Stastically Significant at 95% Confidence Interval*

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